HARVEST | Helping Address Rural Vulnerabilities and Ecosystem STability

Technical Bulletin #13:

Agrochemical General Information Sheet-Glyphosate

GLYPHOSATE /IPA SALT: Herbicide

Registered Trade names in Cambodia: Kleenup 480SL, Lyphosim 48SL, Graphic 48SL, U-T 48, Confore 480SL

Formulation types: SL (Soluble concentrate)

Chemical family: Glycine derivative

What is glyphosate?

Glyphosate is a non-selective systemic herbicide that controls both broadleaf plants and grasses. Most glyphosate herbicides contain the isopropylamine (IPA) salt of glyphosate. A related chemical, the sodium salt of glyphosate, is used to regulate plant growth in sugar cane and peanut and ripen fruit.

How it works? (mode of action)

Glyphosate is absorbed by leaves and rapidly moves through the plant. It prevents the plant from producing amino acids that are the building blocks of plant proteins. The plant, unable to make proteins, stops growing and dies over a period of four to 20 days. If the chemical is transported throughout the plant, usually no part survives.

Resistance:

Glyphosate resistance occurs where glyphosate is used intensively, few or no other herbicides are used, and there is no control of survivors of glyphosate application. Reducing the risk of glyphosate resistance requires action in the whole of the rotation. In planning the use of herbicide, it is important to choose the type most appropriate for the situation, taking into account soil type, rainfall, and weed spectrum and herbicide-resistance risk.

Human Hazards:	Environmental Fate:
Low/moderate acute toxicity	Bird (quail): slightly toxic
No carcinogenic effects to the skin	Fish (Trout): non-toxic
	Bee (honey): non-toxic
	Ground/surface water: potential contamination from spray drift

Because of the way it works, Glyphosate has very low toxicity for humans, but some solvents used in the formulation can be more toxic that the Glyphosate itself.

First aid measure:

Inhalation: If inhaled, move to fresh air and keep at rest. Obtain medical advice if at all worried.

Skin Contact: Carefully remove contaminated clothing. Wash affected area with soap and water.

Eye Contact: Rinse eyes immediately with clean water for at least 15 minutes, holding eye open. Seek medical advice if irritation develops and persists.

<u>Ingestion:</u> Wash out mouth with water. Keep patient at rest and seek medical advice. Do not give anything by mouth to an unconscious or semi-conscious person



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Mitigation Measures:

- Wear personal protective clothing for applicators.
- Chemical mixed and tanks cleaned in designated areas.
- Application timing (less wind) and do not spray in the opposite direction of the wind.
- Not recommended for use near open water sources
- Do not eat, drink, or smoke while preparing or applying pesticides.
- Triple rinse empty pesticide containers, and use this rinse water as dilution water for the pesticide concentrate in the sprayer for applying on crops.
- Chemical rotation.
- Correct implementation of integrated pest management practices.

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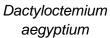


Glyphosate/IPA Salt

1. Product Name: Graphic 48 SL









Cyperus rotundus



Cynodon dactylon

2. Direction for use:

Weed	Recommendation
Cyperus rotundus	4-6L/50-120 L of water/ha
Dactyloctemium aegyptium,	3L/60L of water/ha
Cynodon dactylon	2-3L/40-60L of water/ha